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## Global Mine Clearance

### *An Achievable Goal?*

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#### Conclusions

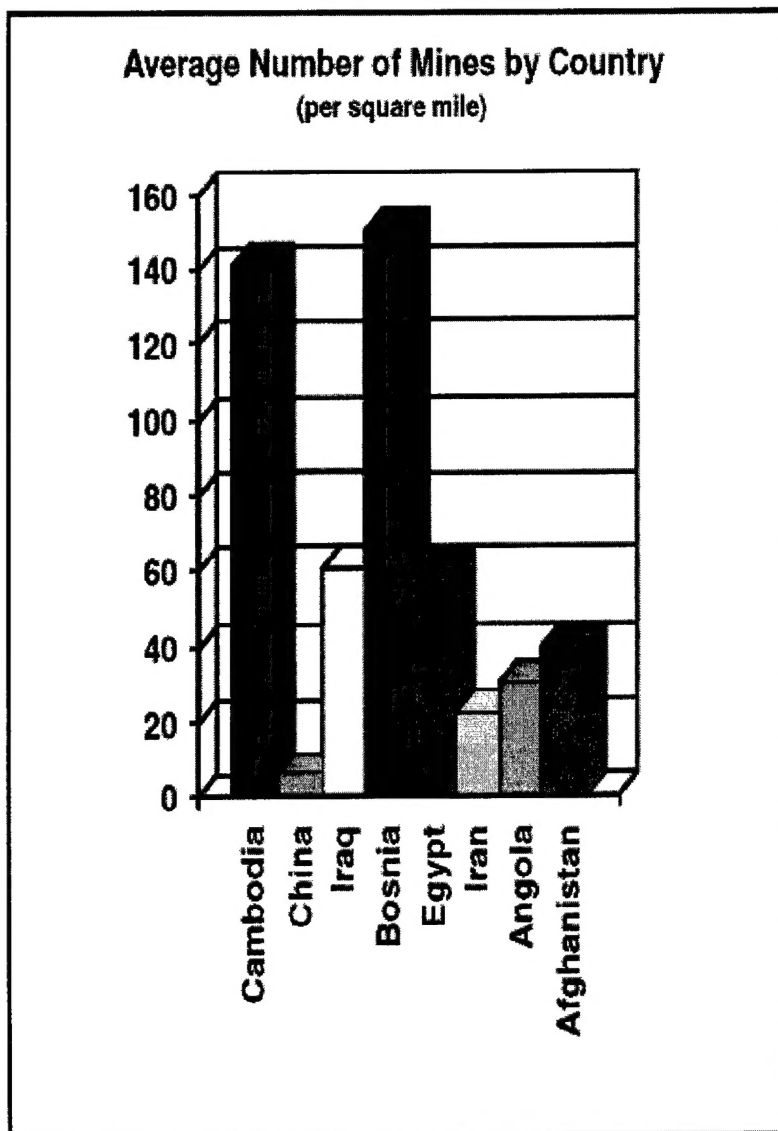
- Approximately 60 people are killed or seriously injured daily by anti-personnel land mines (APLs).
- The number of victims may seem insignificant given the world population, but each person killed or maimed presents a real physical and psychological barrier to the economic and social development of more than 60 affected countries.
- Although 122 nations recently signed a treaty in Ottawa, Canada, banning APL use, the logical next step is to clear existing mines.
- The policy goal established by the Clinton administration to clear anti-personnel land mines from the world by 2010 may be achievable but it requires a change in U.S. strategy.

#### Banning Anti-Personnel Land Mines

The anti-personnel land mine (APL) ban movement, which led to the Ottawa Treaty, enjoys popular support in many Western democracies as well as in mine-afflicted nations. The ban requires an immediate and unconditional commitment to prohibit the use and destroy stockpiles of APLs within a specified time. It makes no differentiation between nations with global security responsibilities and those with none. The ban movement did not recognize previous and ongoing voluntary efforts by the United States and other nations to limit and control APL use. The debate portrayed countries as being either for or against the indiscriminate killing of innocent children. In the United States the issue was emotionally charged and hotly debated, although largely "inside the beltway." Certainly, U.S. commitment to such a treaty is decided in Washington, but also, and just as important, the issue had neither the attention nor interest of Middle America.

Underscoring America's commitment to the principle of an APL free world, but also recognizing the current military need for APL in certain defense scenarios, President Clinton charged the administration with two major near-term efforts. First the Department of Defense (DOD) must deploy a replacement for APLs in the Korean DMZ by 2006. Second, he directed a significant increase in the U.S. mine clearance

program, setting a goal for ending the APL threat by 2010. Secretary of State Madeleine Albright established an office to achieve this goal.



### **U.S. Policy**

U.S. efforts focus on alleviating the personal and economic burdens caused by APLs by helping afflicted states address medical and financial problems while also training local citizens to neutralize APLs.

#### ***Mine Clearance Policy Goals***

- to promote human welfare through mine awareness and training, and
- to promote U.S. foreign policy, security, and economic interests.

### ***Mine Clearance Policy Objectives***

- reduction of civilian casualties,
- development of medical infrastructure,
- enhancement of host country stability,
- establishment of sustainable indigenous demining programs.

These goals and objectives recognize the connection between APL victims, their local economy, and the logical need for afflicted nations to work the hardest to provide their own solutions. When a medical infrastructure is developed that is sustainable and can meet all the requirements for rehabilitation, victims can retake their place in productive society. As economies develop, with the return of arable land and capable people, regions and countries become more stable. Stable economies promote political stability. U.S. national interests of peace and stability are complemented.

### **Philosophical Approach**

As long as the United States is the pre-eminent world power, it will be looked to for leadership in mine clearance. About 10 years ago the United States joined the fledgling humanitarian mine clearance effort around the world. Since that time we have generally expanded our effort by simply doing more of what was done before. While that approach got mines out of the ground, it will not suffice to meet President Clinton's goal and the world's expectation of us.

The May 1998 Washington Conference acknowledged that 110 million mines may be a counterproductive overestimation. The conference attendees agreed to revise and lower the estimate. This decision acknowledges that the number of mines is not as central to the issue as the number of victims.

The "one at a time" clearance method of the past requires technological augmentation to reach the President's goal. The problem is further complicated by the profusion of areas that are declared minefields but are in fact only "suspected" or may consist of only one mine, the one that exploded.

A two-part enhanced technology effort is emerging as a cornerstone of the U.S. approach to mine clearance. First, use technology to cut the problem down to size; and second, use technology to find and clear the mines. Highly accurate surveys are needed to separate suspected from confirmed areas and, further, to limit the actual mined areas to their real boundaries. Some currently available satellite and global positioning satellite (GPS) technology may, with further development, be useful. Using this technology to reliably rule out suspected areas, much land can be returned to use without the expense of painstakingly clearing each square foot. With suspected areas ruled out, further development of fast, cheap clearance should be the remaining priority. The Defense Advanced Research Projects Agency (DARPA) is developing, among other projects; computer-assisted technology to mimic the processing a dog's nose and brain do to differentiate smells. This research is promising and may result in very low risk mine clearance. Further research in this area coupled with highly accurate surveys could make the concept of land mines in war obsolete.

While this research is carried out, casualties are still occurring at an alarming rate. The United States is

actively trying to alleviate APL dangers until the new technology is available. DOD sends uniformed service members to *teach* indigenous troops or citizens mine clearance and related subjects. An unwritten policy from Capitol Hill requires that U.S. instructors *not* accompany indigenous personnel in minefields during actual mine removal. The impact of this is obvious. U.S. instructors are teaching mine clearing from a theoretical point only, since they have never cleared actual mines under peacetime conditions. Wartime mine-breaching operations are different from peacetime clearance because in war there is no concern for preserving the agricultural quality of the soil. Mine-afflicted countries know that U.S. instruction is not as credible as that from Non-Governmental Organizations (NGOs). These NGOs have hands-on experience and are willing to go into the field with their trainees. However, U.S. administrative and logistical support is still highly regarded. The United States has the reputation in many mine-afflicted countries of providing reliable equipment, adequate training for that equipment, and adequate availability of spare parts all serviced by honest and friendly personnel. Further, most recipients of U.S. military aid in general know that the United States lives up to its written agreements.

Other U.S. government agencies also contribute. The U.S. Agency for International Development (USAID) has a seat on the Inter-Agency Work Group for Humanitarian Demining, but has a small budget for demining project support and does not routinely consult on each demining mission. The link between mine clearance and economic development could be maximized by closer cooperation among U.S. government agencies throughout the process, to include evaluative follow-up, once mine clearance has been completed.

This success in monitoring and executing small-scale operations may be adequate for small, slow clearance; but it is insufficient to clear enough land to end the threat by 2010.

### **External Factors**

Achievement of this goal is further clouded by local and international situations, which are unique to the APL issue. Among these are:

- UN observers have noted local farmers installing and removing their own private minefields, using them to protect crops.
- There is no definition of a "cleared" minefield. The United Nations, individual nations, and mine clearance companies all differ, with commercial insurance coverage determining meaning.
- Many mine-afflicted areas are also infested with metal fragments from other ordnance, increasing clearance time greatly as every metal object must be treated as a mine until proven otherwise.

Some issues can be resolved through diplomacy; some are better resolved applying research and technology. Through its combined State/Defense approach, the United States has spent \$153 million over the past five years to help demine 17 countries. It makes sense to continue the State/Defense division of responsibilities.

### **Internal Factors**

The suitability of Humanitarian Mine Clearing in an era of constrained resources is debated in DOD, even as Capitol Hill reflects a reluctance to risk U.S. soldier's lives unnecessarily. Advocates of mine clearing point out that such a new role for the U.S. military ensures relevance, and promotes stability and peace through economic development. In the final analysis, however, DOD is judged on its ability to win

war, not by how many hectares of foreign soil have been cleared. Private contractors or NGOs could be used to provide mine clearing instruction, support, and services. Conduct of actual mine clearance could be further outsourced in this manner. DOD could continue its support, with U.S. defense attaches, augmented by Army engineer experts, providing quality control through spot checks of cleared areas. This would provide certain Army elements, notably special operations forces, with exposure to foreign languages and culture. This arrangement provides diplomacy, leadership, technical expertise and safety.

## **Funding**

In the short term, funding appears to be adequate. Up to \$80 million has been allocated by the Clinton administration this year. However, this figure needs to be greatly augmented by as many other countries as possible. A more precise figure of how much more money must be raised depends on the methodology of clearance. The method used in any given country is dependent on four interrelated factors: culture, climate, terrain and technology. Locating, plotting and clearing mines using high technology may speed up the process, thereby saving lives. However, no body of knowledge exists to explain the wide variance in clearance costs between mined areas.

A goal of the emerging strategy is to demonstrate how partnerships between government, industry and the population at large can raise funds, foster commitment and raise consciousness on this issue. Public donations coupled with private and corporate financing are desirable and provide an example for other countries that want mine-clearing assistance. Tremendous research and development potential exists in our national defense laboratories, such as the Lincoln or Lawrence Livermore Laboratories. This combination could match appropriate new technology with cultural, climate and terrain considerations to increase effectiveness. American colleges and universities are also involved in research that complements detection and clearance efforts. Further partnering their efforts with those of the national laboratories could hasten breakthroughs in mine clearance.

Other partnerships could also be encouraged. A farm community could sponsor a mine-afflicted farm community in Bosnia or Cambodia, for example. Local and national merchants could donate supplies and equipment to the sponsored community that could be shipped free via military transportation under the provisions of 10 U.S.C.A. 2608. Other nations would be encouraged to adopt this sort of sponsorship.

## **Public Awareness and Support**

As previously mentioned, public consciousness about this issue is lacking. Despite efforts such as the support of late Princess Diana for the APL Ban Campaign, it does not seem to be a priority issue to the American people. No Americans are at risk from APL within the borders of the United States.

To put this subject on the national agenda would require a significant public relations effort and expense. Obtaining a national commitment requires national awareness and consensus. This can only be built when America's leaders take up the issue in earnest. Currently the sensitivity brought to the larger issue of land mines by the APL Ban Campaign has made the topic noxious to national leadership. Activists accuse President Clinton of diverting attention from the issue through his announcement of the 2010 goal and then throwing money at it and hoping it will go away.

It is logical for Americans to ask why they should be concerned and whether the mines are made in the United States. In Afghanistan, Cambodia, Angola and El Salvador, there are mines made in the United States, as well as those of other countries. The death and destruction that mines still cause establishes a

moral reason for American concern and involvement. Americans have been historically supportive of well-grounded, well-publicized humanitarian causes and donate regularly and reliably to the Red Cross and other relief agencies.

## **Summary**

While global APL casualty reduction by the year 2010 is a worthwhile goal, its achievement under U.S. leadership requires a change in current philosophy and an intensively managed follow-through. A good start has been made which, with public and private support, can broaden into a program encouraging economic development while promoting stability and peace. The United States should concentrate on rapidly achieving breakthroughs in research and development, applying these technological advances to surveying to quickly confirm or deny suspected minefields, and limiting the problem to its true size. Efforts should be redoubled to develop medical and rehabilitative infrastructure because the United States is one of the few countries which can do so.

## **Recommendations**

The Departments of State and Defense should collaborate in order to change U.S. strategy to achieve the President's goal by the year 2010. That strategy should promote America's ability to do that which it does best. The United States can research and develop faster and better than any other nation in the clearance effort. It is important to continue removing mines by every means possible because each mine removed is potentially a life saved. While other countries continue their efforts, the United States should concentrate its greater technological capability on high speed, increased reliability surveys. This would allow more land to be declared mine-free and returned to use. We should stop funding limited benefit "train the trainer" type missions while increasing contracts with the most reliable private mine clearance companies for operations. Our superior medical technology can be applied to victim assistance. New partnerships between public and private sectors should be encouraged. Finally, a public information campaign is needed to increase support for this humanitarian cause in the United States.

The United States has also led the world in the effort to remove existing land mines, again not with talk, but with action that has saved lives. Our experts have helped to remove mines from the ground in 15 nations. They have trained and equipped roughly one-quarter of all the people who work at this effort around the world. These efforts are paying off.

President William J. Clinton  
September 17, 1997

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